CLAIMS

1. A method for treatment of abnormal cells in a mammal, the method comprising treating the mammal with an effective amount of virus selected from echoviruses, and modified forms and combinations thereof, which recognise $\alpha_2\beta_1$ for infectivity of the cells such that at least some of the cells are killed by the virus.

2. A method according to claim 1 comprising subjecting the mammal to a number of treatments with the virus, and the virus in each of the treatments is the same or different.

3. A method according to claim 1 wherein the virus comprises an echovirus serotype or modified form thereof.

4. A method according to claim 3 wherein the virus is selected from the group consisting of EV1, EV7, EV8 and EV22.

5. A method according to claim 3 wherein the virus is a modified echovirus.

6. A method according to claim 5 wherein the virus has been modified to enhance ability of the virus to infect the abnormal cells.

7. A method according to claim 5 or 6 wherein the modified echovirus is a modified form of an echovirus selected from a group consisting of EV1, EV7, EV8 and EV22.

8. A method according to any one of claims 1 to 7 wherein the virus is administered to the mammal in combination with a further virus which infects the abnormal cells.

9. A method according to claim 8 wherein the abnormal cells express ICAM-1 and the further virus recognises ICAM-1 for infectivity of the abnormal cells.

10. A method according to claim 9 wherein the further virus is a Coxsackievirus or modified form thereof.

11. A method according to claim 10 wherein the Coxsackievirus is a Coxsackievirus serotype selected from A13, A15, A18 and A21.

12. A method according to any one of claims 1 to 11 wherein the abnormal cells are cancer cells.

13. A method according to claim 12 wherein the cancer cells are cells of a cancer selected from a group consisting of ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer and colorectal cancer, or have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

14. A method according to any one of claims 1 to 13 wherein the abnormal cells have up-regulated expression of $\alpha_2\beta_1$.

15. A method according to any one of claims 1 to 14 wherein the virus is administered topically, systemically or intratumorally to the mammal.

16. A method of screening a sample of abnormal cells from a mammal for susceptibility to virus induced cell death to evaluate administering virus to the mammal for treatment of the abnormal cells, the method comprising:

(a) providing the sample of the abnormal cells;

(b) treating the cells with the virus for a period of time sufficient to allow infection of the cells by the virus; and

(d) determining whether the virus has infected and caused death of at least some of the abnormal cells;

wherein the virus is selected from echoviruses, and modified forms and combinations thereof, which recognise $\alpha_2\beta_1$ for infectivity of the abnormal cells.

17. A method according to claim 16 wherein the virus comprises an echovirus serotype or a modified form thereof.

18. A method according to claim 16 wherein the virus is selected from a group consisting of EV1, EV7, EV8 and EV22.

19. A method according to claim 17 wherein the virus is a modified echovirus.

20. A method according to claim 19 wherein the virus has been modified to enhance ability of the virus to infect the abnormal cells.

21. A method according to claim 19 or 20 wherein the modified echovirus is a modified form of an echovirus selected from a group consisting of EV1, EV7, EV8 and EV22.

22. A method according to any one of claims 16 to 21 further comprising comparing ability of the virus to infect and cause death of the cells with a different virus subjected to steps (b) and (c) utilising another sample of the cells and which recognises $\alpha_2\beta_1$ for infectivity of the cells.

23. A method according to claim 22 wherein the different virus is a different echovirus or modified form thereof.

24. A method according to any one of claims 16 to 23 wherein the cells are cancer cells.

25. A method according to claim 24 wherein the cancer cells are cells of a cancer selected from a group consisting of ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer and colorectal cancer, or have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

26. A method of screening a virus for ability to infect and cause death of abnormal cells from a mammal to evaluate administering the virus to the mammal for treatment of the abnormal cells, the method comprising:

(a) selecting the virus;

(b) treating a sample of the abnormal cells from the mammal with the virus for a period of time sufficient to allow infection of the cells by the virus; and

(c) determining whether the virus has infected and caused death of at least some of the abnormal cells;

wherein the virus is selected from echoviruses and modified forms thereof, which recognise $\alpha_2\beta_1$ for infectivity of the abnormal cells.

27. A method according to claim 26 wherein the virus comprises an echovirus serotype or a modified form thereof.

28. A method according to claim 26 wherein the virus is selected from a group consisting of EV1, EV7, EV8 and EV22.

29. A method according to claim 27 wherein the virus is a modified echovirus.

30. A method according to claim 29 wherein the virus has been modified to enhance the ability of the virus to infect the abnormal cells.

31. A method according to claim 29 or 30 wherein the modified echovirus is a modified form of an echovirus selected from a group consisting of EV1, EV7, EV8 and EV22.

32. A method according to any one of claims 26 to 31 further comprising comparing ability of the virus to infect and cause death of the cells with a different virus subjected to steps (b) and (c) utilising another sample of the cells and which recognises $\alpha_2\beta_1$ for infectivity of the cells.

33. A method according to claim 32 wherein the different virus is a different echovirus or modified form thereof.

34. A method according to any one of claims 26 to 33 wherein the abnormal cells are cancer cells.

35. A method according to claim 34 wherein the cancer cells are cells of a cancer selected from a group consisting of ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer and colorectal cancer, or have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

36. A method for inducing an immune response in a mammal against abnormal cells expressing $\alpha_2\beta_1$, the method comprising infecting abnormal cells in the mammal with virus selected from echoviruses, and modified forms and combinations thereof, whereby lysis of at least some of cells is caused.

37. A method according to claim 36 wherein the virus comprises an echovirus serotype of modified form thereof.

38. A method according to claim 37 wherein the virus is selected from the group consisting of EV1, EV7, EV8 and EV22.

39. A method according to claim 37 wherein the virus is a modified echovirus.

40. A method according to claim 39 wherein the virus has been modified to enhance ability of the virus to infect the abnormal cells.

41. A method according to claim 39 or 30 wherein the modified echovirus is a modified form of an echovirus selected from a group consisting of EV1, EV7, EV8 and EV22.

42. A method according to any one of claims 36 to 41 wherein the abnormal cells have up-regulated expression of $\alpha_2\beta_1$.

43. A method according to any one of claims 36 to 42 wherein the virus is administered to the mammal in combination with a further virus which infects the abnormal cells.

44. A method according to claim 43 wherein the abnormal cells express ICAM-1 and the further virus recognises ICAM-1 for infectivity of the abnormal cells.

45. A method according to claim 44 wherein the further virus is a Coxsackievirus or modified form thereof.

46. A method according to claim 45 wherein the Coxsackievirus is a Coxsackievirus serotype selected from A13, A15, A18 and A21.

47. A method according to any one of claims 36 to 46 wherein the abnormal cells are cancer cells.

48. A method according to claim 47 wherein the cancer cells are cells of a cancer selected from a group consisting of ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer and colorectal cancer, or have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

49. A method according to any one of claims 36 to 48 wherein the virus is administered topically, systemically or intratumorally to the mammal.

50. A pharmaceutical composition for treating abnormal cells in a mammal, comprising an inoculant for generating virus to treat the cells such that at least

some of the cells are killed by the virus together with a pharmaceutically acceptable carrier, wherein the virus is selected from echoviruses, and modified forms and combinations thereof, which recognise $\alpha_2\beta_1$ for infectivity of the cells..

51. A pharmaceutical composition according to claim 50 wherein the virus comprises an echovirus serotype or modified form thereof.

52. A pharmaceutical composition according to claim 51 wherein the virus is selected from the group consisting of EV1, EV7, EV8 and EV22.

53. A pharmaceutical composition according to claim 49 wherein the virus is a modified echovirus.

54. A pharmaceutical composition according to claim 51 wherein the virus has been modified to enhance ability of the virus to infect the abnormal cells.

55. A pharmaceutical composition according to claim 53 or 54 wherein the modified echovirus is a modified form of an echovirus selected from a group consisting of EV1, EV7, EV8 and EV22.

56. A pharmaceutical composition according to any one of claims 50 to 55 wherein the abnormal cells are cancer cells.

57. A pharmaceutical composition according to any one of claims 50 to 56 wherein the pharmaceutical composition is for topical administration or injection.

58. An applicator for applying an inoculant to a mammal for generating virus to treat abnormal cells in the mammal, wherein the applicator comprises a region impregnated with the inoculant mammal such that the inoculant is in contact with the mammal, and the virus is selected from echoviruses, and modified forms and combinations thereof, which recognise $\alpha_2\beta_1$, for infectivity of the cells..

59. An applicator according to claim 58 wherein the region impregnated with the virus comprises padding or wadding for being held in contact with the mammal.

60. An applicator according to claim 58 or 59 wherein the abnormal cells are abnormal skin cells and the applicator further comprises one or more adhesive surfaces for adhering to skin of the mammal.

61. An applicator according to any one of claims 58 to 60 in the form of a patch or sticking plaster.

62. Use of an inoculant for generating virus in the manufacture of medicament for inducing an immune response against abnormal cells in a mammal, where the virus is selected from echovirus, and modified forms and combinations thereof, which recognise $\alpha_2\beta_1$, for infectivity of the abnormal cells.

63. Use of an inoculant for generating virus in the manufacture of medicament for inducing an immune response against abnormal cells in a mammal, where the virus is selected from echovirus, and modified forms and combinations thereof, which recognise $\alpha_2\beta_1$, for infectivity of the abnormal cells and kill the cells.